

**CLAIMS:**

1. A video driver for display device, comprising:
  - a buffer amplifier adapted to receive and buffer a voltage ramp input signal, the buffer amplifier comprising,
    - an input stage adapted to receive the voltage ramp input signal, and
    - an output stage adapted to provide a video output signal, the output stage comprising a pair of output stage transistors connected in series between a first supply voltage and a second supply voltage,
  - and a feedback path between the output stage and the input stage adapted to cause the video output signal to follow the voltage ramp input signal when the output stage is enabled; and
  - a first sample-and-hold switch arranged between a control terminal of a first one of the output stage transistors and the first supply voltage, the first sample-and-hold switch being responsive to a first sample-and-hold control signal to selectively connect the control terminal of the first one of the output stage transistors to the first supply voltage and turn off the first one of the output stage transistors; and
  - a second sample-and-hold switch arranged between a control terminal of a second one of the output stage transistors and the second supply voltage, the second sample-and-hold switch being responsive to a second sample-and-hold control signal to selectively connect the control terminal of the second one of the output stage transistors to the second supply voltage and turn off the second one of the output stage transistors.
2. The video driver of claim 1, wherein the first and second sample-and-hold switches each comprise a transistor.
3. The video driver of claim 1, further comprising a pair of sample-and-hold control terminals connected to control terminals of the first and second sample-and-hold switches and providing thereto the first and second sample-and-hold control signals.

4. The video driver of claim 1, further comprising a transmission gate in the feedback path between the output stage and the input stage.
5. The video driver of claim 4, wherein the transmission gate comprises a complementary pair of transistors.
6. The video driver of claim 5, further comprising a pair of sample-and-hold control terminals connected to control terminals of the complementary pair of transistors of the transmission gate.
7. A video driver for a display device, comprising:
  - an input stage adapted to receive a voltage ramp input signal;
  - an output stage adapted to provide a video output signal to charge a capacitor;
  - a feedback path between the output stage and the input stage adapted to cause the video output signal to follow the voltage ramp input signal to charge the capacitor when the output stage is enabled; and
  - sampling means for selectively disabling the output stage to disable further charging of the capacitor.
8. The video driver of claim 7, wherein the sampling means comprises a sample-and-hold switch arranged between an output control terminal of the output stage and a supply voltage.
9. The video driver of claim 8, wherein the sampling means comprises a second sample-and-hold switch arranged between a second output control terminal of the output stage and a second supply voltage.
10. The video driver of claim 9, wherein the output stage includes a pair of transistors connected in series, and wherein the first and second output control terminals are connected to gates of the pair of transistors.

11. The video driver of claim 7, further comprising a transmission gate in the feedback path between the output stage and the input stage.
12. The video driver of claim 11, wherein the transmission gate comprises a complementary pair of transistors.
13. The video driver of claim 12, further comprising a pair of sample-and-hold control terminals connected to control terminals of the complementary pair of transistors of the transmission gate.
14. A video driver for a display device, comprising:  
an amplifier adapted to receive a voltage ramp signal and to output a video output signal to charge a capacitor; and  
sampling means for selectively disabling the amplifier from further outputting the video output signal, to disable further charging of the capacitor and maintain a voltage previously charged thereon.
15. The video driver of claim 14, wherein the amplifier comprises at least one output control terminal, and wherein the sampling means comprises a sample-and-hold switch arranged between the output control terminal and a supply voltage.
16. The video driver of claim 14, wherein the amplifier comprises first and second control terminals, and wherein the sampling means comprises first and second sample-and-hold switches arranged respectively between the first output control terminal and a first supply voltage and between the second output control terminal and a second supply voltage.
17. The video driver of claim 16, wherein the amplifier includes a pair of transistors connected in series, and wherein the first and second output control terminals are connected to gates of the pair of transistors.

18. The video driver of claim 14, further comprising a transmission gate in a feedback path of the amplifier.
19. The video driver of claim 18, wherein the transmission gate comprises a complementary pair of transistors.
20. The video driver of claim 19, further comprising a pair of sample-and-hold control terminals connected to control terminals of the complementary pair of transistors of the transmission gate.